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Title:	National Energetic and Engineering Weapon Campus (NEEWC)
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Los Alamos National Laboratory:

National Energetic and Engineering Weapon Campus (NEEWC)

- Campus is **17 sq mile limited area** with Explosive, Accelerator, and Nuclear Operations
- Majority of structures date back to the 1950s
- Four primary capability sets

High Explosives

- Research & Development
- Production/Surveillance
- Waste/Storage

Design and Certification

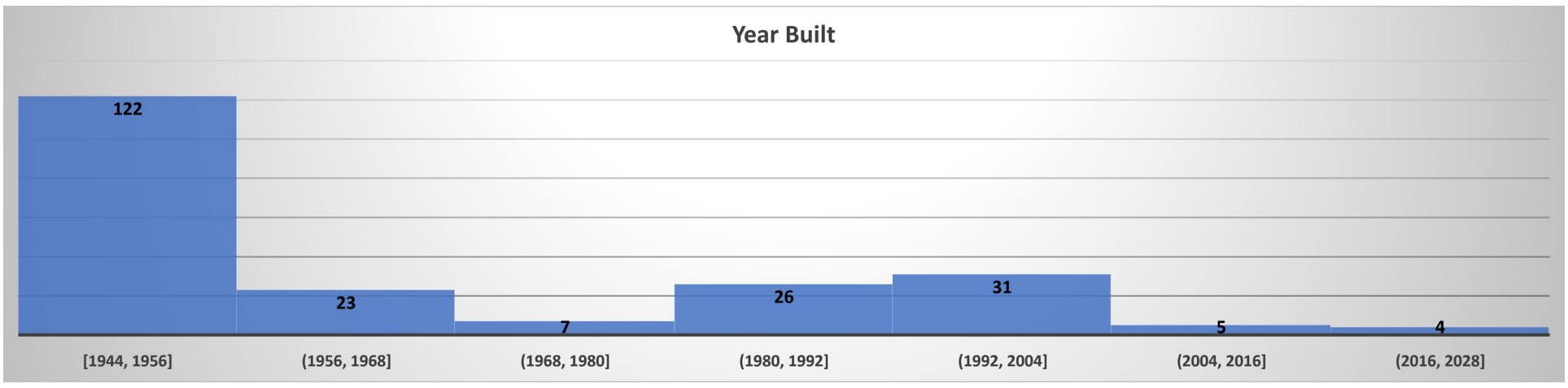
- Hydrodynamic
- Weapon Engineering

Tests and Experiments

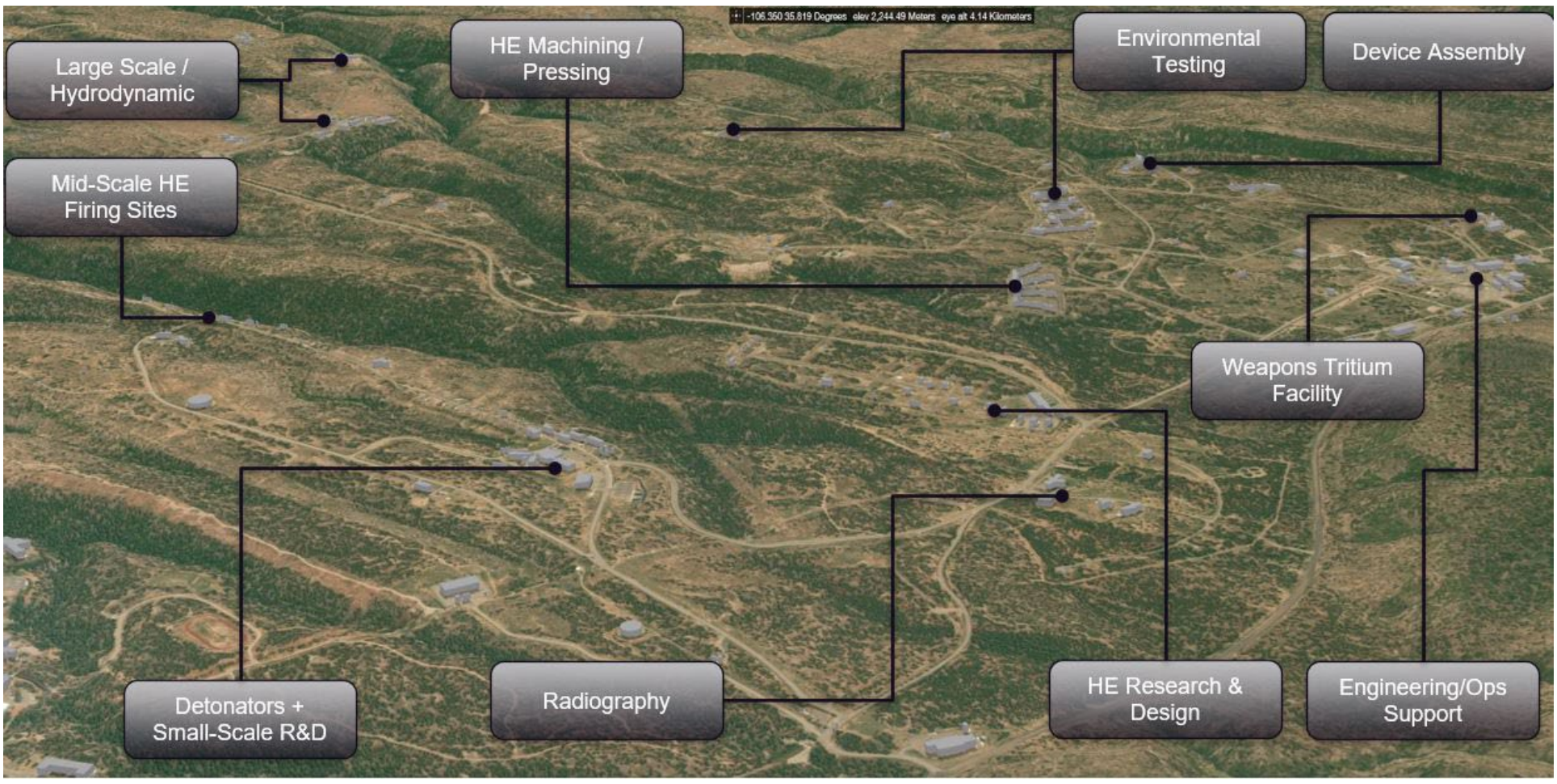
- Environmental Tests
- Material Testing

Tritium

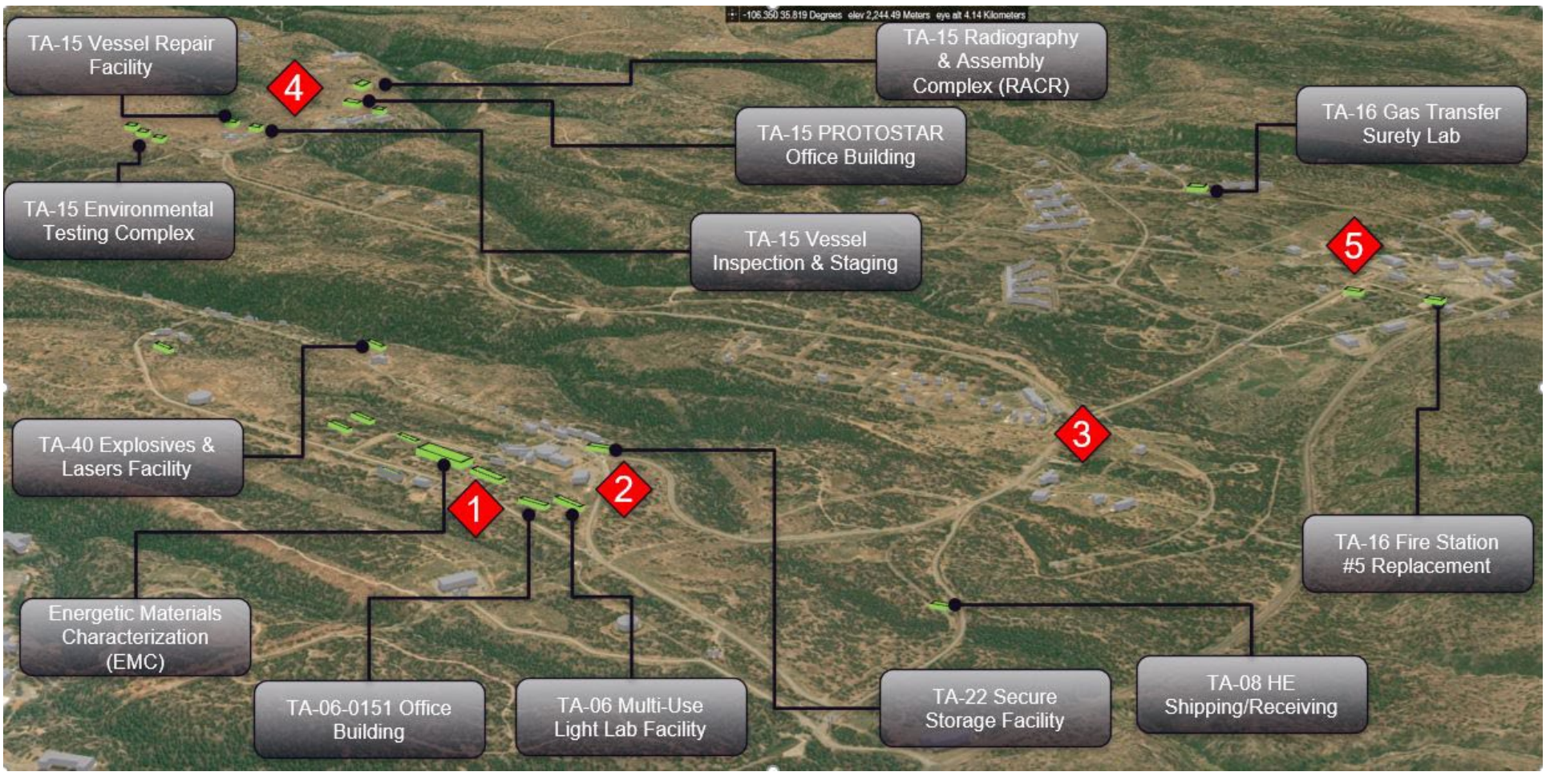
- Research and Development
- Waste/Storage



Major Operational Areas



Major Planned Investments



Bottom Line Up Front (BLUF)

- Weapons engineering and experimental capabilities are central to our core nuclear weapon missions.
  - Assessment and Certification
  - Design Qualification
  - Component Production (expanding to support KCP work load) and Surveillance
  - Support for Component Production and Surveillance
- Current and continued sustained high level of program activities anticipated from current stockpile, B61 LEP, W88 Alt370, W93 and multiple Alts.
- NA-11, NA-12, NA-19, and Global Security (NA-20, NA-80) programs supported.
- Asset group within current limitations allows full execution of required capabilities to support core mission.
  - High Explosive
  - Design and Certification
  - Tests and Experiments
  - Tritium
- Capabilities exist within a **single geographically limited** area with **unique capabilities** not available elsewhere in the complex or nation:
  - Outdoor explosive testing with depleted uranium (DU);
  - DARHT hydrodynamic experiments;
  - Engineering testing of high-fidelity assemblies with explosives and key weapon materials
  - Explosive development from synthesis through detonation
  - Advanced Gas Transfer System Development
- Strategic infrastructure plan structured with new facility projects to meet future mission requirements and modernization of enduring facilities.

Strategic Vision for the NEEWC

Consolidation Strategy

- Geographically: activities are currently dispersed across the entire site based upon the 1950s approach
- Complementary capabilities
- Explosive Operational scale
- Infrastructure reduction
- New Construction

Primary Projects to meet that strategy

Energetic Material Characterization (EMC) CD-1 Expected 2022	**Radiography and Assembly Complex Replacement (RACR) CD-0 Expected 2022**	**Environmental Testing Complex (ETC) First of three GPPs underway**

Challenges Facing the NEEWC

- Competing priorities:
  - Projects supporting the NEEWC will be competing against other institutional projects for both funding and resources;
  - Skilled craft resources throughout the region will likely be stretched thin;
- Majority of campus locations require primary utility upgrades;
- With the onset of the COVID pandemic, prices of commodities have skyrocketed;
- Nearly all projects are conducted within the confines of the Limited Area;
- Majority of projects are conducted within HE Area's;
- Several projects will be forced to deal with legacy contamination;
- Coordination with the Manhattan National Historic Park

Opportunities / Creative Solutions

- Integrated Planning via the Campus Master Plan:
  - Major investments are prioritized and then "load-levelled" for submission to the funding sponsors in a manner which distributes requests over many years knowing the competing priorities will dictate what gets approved;
- Several projects, namely office buildings, are leveraging the modular approach wherein the bulk of the construction is performed off-site at vendor facilities;
- Many projects are leveraging the standardized design process, such as PROTOSTAR, which should accelerate design efforts thereby saving schedule and ultimately costs;
- Nearly all projects within the portfolio take advantage of Activity Security Plans which provide escort ratio relief from 1:5 up to 1:15;